

CLAIMS

What is claimed is:

1. A telephone network comprising:
 2. an internet service provider (ISP) coupled to a local switching exchange; the local switching exchange for receiving and transmitting calls to a plurality of devices;
 3. a plurality of modems coupled to the ISP; and
 4. a plurality of phone systems, each of the phone systems including a cordless unit and a base station; each of the plurality of phone systems being associated with one of the plurality of modems, wherein a call can be routed to or from each of the cordless units through any of the modems to any of the plurality of devices.
5. The telephone network of claim 1 wherein a call is routed from a cordless unit to the ISP if the cordless unit is within range of its associated base station, and the call is routed from another of the plurality of modems if the cordless unit is within range of the base station associated with the another modem.
6. The telephone network of claim 1 wherein a call is encrypted by a cordless unit and decrypted by the ISP.
7. The telephone network of claim 3 wherein each of the plurality of modems can convert an encrypted call to IP packets.
8. The telephone network of claim 3 wherein the encrypted call includes information

2 related to the phone system which initiates the call.

1 6. The telephone network of claim 4 wherein the ISP decrypts the IP packets and
2 converts the IP packets to analog data for delivery to a device

1 7. The telephone network of claim 4 wherein each of the plurality of modems comprise
2 a cable modem.

8. A method for sending a call from a phone system to a device, the phone system
comprising a cordless unit and a base station, the phone system being coupled to a modem,
the modem being coupled to an internet service provider (ISP), the method comprising the
steps of:

- (a) utilizing the cordless unit to initiate the call;
- (b) determining whether the cordless unit is within range of the base station;
- (c) routing the call from the cordless unit to the ISP via the modem, if the
cordless unit is within range of the base station;
- (d) routing the call from the cordless unit to the ISP via another modem if the
cordless unit is not within range of the base station, the another modem being associated
with another base station and being coupled to the ISP; and
- (e) providing the call to the device.

1 9. The method of claim 8 that includes the step of (a1) encrypting the call prior to step
2 (b).

1 10. The method of claim 9 wherein encrypting step (a1) further comprises:
2 (ai) utilizing the cordless unit to convert the data from analog to digital and
3 (aii) utilizing an encryption technique within the cordless unit to encrypt the digital
4 data.

1 11. The method of claim 10 wherein the encrypted digital data comprises information
2 related to the phone system.

12. The method of claim 11 wherein the modem routing step (c) further comprises the
step of (c1) utilizing the modem to convert the encrypted digital data to IP packets.

13. The method of claim 12 wherein the another modem routing step (d) further
comprises the step of (d1) utilizing the another modem to convert the encrypted digital data
to IP packets.

1 14. The method of claim 13 wherein the providing step (e) includes the step of (e1)
2 decrypting the data by the ISP.

1 15. The method of claim 14 wherein the encrypting step (e1) further comprises the steps
2 of:
3 (e1i) decrypting the IP packets;
4 (e1ii) converting the IP packets to digital data; and
5 (e1iii) converting the digital data to analog data.

1 16. A method for receiving a call from a device by a phone system, the device having
2 been called from the phone system, the phone system comprising a cordless unit and a base
3 station, the phone system being coupled to a modem, the modem being coupled to an
4 internet service provider (ISP), the method comprising the steps of:
5 (a) providing the call to the ISP;
6 (b) determining whether the cordless unit being called is within range of the base
7 station by the ISP;
8 (c) routing the data from the device to the cordless unit via the modem, if the
9 cordless unit is within range of the base station; and
10 (d) routing the data from the device to the cordless unit via another modem if the
11 cordless unit is not within range of the base station the another modem being associated with
12 another base station and being coupled to the ISP; and
13 (e) receiving the call by the phone system.

1 17. The method of claim 16 that wherein the providing step (a) includes the step of (a1)
2 encrypting the call.

1 18. The method of claim 17 wherein encrypting step (a1) further comprises:
2 (ai) utilizing the ISP to convert the data from analog to digital and
3 (aii) utilizing an encryption technique within the ISP to encrypt the digital data.

1 19. The method of claim 18 wherein the encrypted digital data comprises information
2 related to the phone system.

1 20. The method of claim 19 wherein modem routing step (c)) further comprises the step
2 of (c1), utilizing the modem to convert the encrypted digital data to IP packets.

1 21. The method of claim 20 wherein the another modem routing step (d) further
2 comprises the step of (d1), utilizing the another modem to convert the encrypted digital data
3 to IP packets.

1 22. The method of claim 13 wherein the provided step includes the step of (e1),
2 decrypting the data by the cordless unit.

1 23. The method of claim 14 wherein the encrypting step (e1) further comprises the steps
2 of:
3 (e1i) decrypting the IP packets;
4 (e1ii) converting the IP packets to digital data; and
5 (e1iii) converting the digital data to analog data.

1 24. A phone system comprising:
2 a base station, the base station being coupled to a modem, wherein the modem is
3 coupled to an internet service provider (ISP); and
4 a cordless unit, the cordless unit being associated with the base station, wherein a
5 call can be routed to or from the cordless unit through the modem or through another
6 modem coupled to the ISP if the cordless unit is within range of a base station that is
7 associated with the another modem.

1 25. The phone system of claim 24 wherein the call is encrypted by the cordless unit.

1 26. The phone system of claim 25 wherein the encrypted call includes information
2 related to the phone system.

1 27. The phone system of claim 24 wherein the modem and the another modem each
2 comprises a cable modem.